Message

From: Whittier, Robert [Robert.Whittier@doh.hawaii.gov]

Sent: 11/18/2016 7:03:28 PM

To: Takaba, Richard R [richard.takaba@doh.hawaii.gov]; Frazier, William Mark [william.frazier@doh.hawaii.gov];

steven.chang@doh.hawaii.gov; roxanne.kwan@doh.hawaii.gov; Pallarino, Bob [Pallarino.Bob@epa.gov]

CC: joanna.seto@doh.hawaii.gov
Subject: Here is How I would Do It

Attachments: Risk-fate-transport_assessment_methodology.docx

Hi All,

About two years ago I drafted a basic plan for investigating the risk that the Red Hill Facility poses to drinking water wells. This memo was routed through DOH and delivered to the Navy. It seems it was valid approach since the process is moving in the proposed direction. In addition to the efforts of the AOC team, other organizations have taken it upon themselves to execute investigations similar to what was proposed. For example the 2015 USGS/HBWS aquifer test. To the extent I can, both through the AOC and my collaboration with UH, am executing that plan to best of my ability. Since the memo was written and submitted, the scope I am attempting to execute has been expanded to include stable isotope analysis, and possibly geophysics (likely seismic) and stochastic analysis of the transport properties of vadose zone.

Answering the important questions about the risk that Red Hill poses and doing it in a manner that efficiently uses the taxpayers money will require thinking outside of the standard box. I tried to convey that in my comments on the revised SOW/WP and throughout the process, but am also trying to re-emphasize it here.

Thanks, Bob W.